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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,113

02/18/2004

Clemens Johannes Vroome

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1963

23280 7590 09/15/2009  
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EXAMINER

CULLER, JILL E

ART UNIT

PAPER NUMBER

2854

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/781,113	<b>Applicant(s)</b> VROOME, CLEMENS JOHANNES	
	<b>Examiner</b> Jill E. Culler	<b>Art Unit</b> 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,058,844 to Niemiec in view of U.S. Patent No. 3,238,869 to West et al.

With respect to claims 1 and 5, Niemiec teaches a web-fed rotary printing press, in the form of a web-fed rotary offset press, comprising: at least one press cylinder, 16, for printing a paper web, 14, conveyed at a controllable first tensile stress; a dryer, 18, disposed downstream of said press cylinder, said dryer guiding the paper web along a path; a first pull roll, 20, disposed downstream of said dryer for conveying the paper web along the path with a second tensile stress, and an apparatus for driving said pull roll at a controllable rotational speed which sets said second tensile stress.

Niemiec does not teach an apparatus downstream of the press cylinder and upstream of the dryer for separating the paper web from said press cylinder during a normal printing operation, said separating of the paper web from said press cylinder being decoupled from the conveying of the paper web along the path.

West et al. teaches an apparatus, 160, 161, disposed downstream of a press cylinder, 30, for separating a web from the press cylinder decoupled from the conveying of the web. See column 10, lines 3-16.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Niemiec to have a separating apparatus, as taught by West et al. in order to improve the transition of the web from the last press cylinder into the dryer and minimize potential damage to the web.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of West et al. as applied to claims 1 and 5 above, and further in view of U.S. Patent No. 3,875,682 to Justus et al.

With respect to claim 2, Niemiec and West et al. teach all that is claimed, as in the above rejection of claims 1 and 5, except for a controller, coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is 10% or less than said first tensile stress.

Justus et al. teaches an apparatus for driving a pull roll for a paper web at a rotational speed being reduced as compared to a rotational speed of a press cylinder in order to set the tensile stress to a value suitable for conveying the paper web after separation from the press cylinder, thereby providing a tensile stress considerably lower than that in a printing path upstream of said at least one press cylinder. See column 2, line 65 – column 3, line 4.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use a control device, such as that taught by Justus et al. with the press cylinder and pull roll of Niemiec in order to enhance the tendency of the edge roll to eliminate flutter.

Although Niemiec and Justus et al. do not explicitly teach controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of West et al., as applied to claims 1 and 5 above and further in view of U.S. Patent No. 6,550,390 to Frankenberger.

Niemiec, and West et al. teach all that is claimed, as in the above rejection of claims 1 and 5, except that the first apparatus for separating the paper web from said press cylinder separates the paper web from said press cylinder without contact, having at least one element selected from the group consisting of blowing elements and ultrasound elements.

Frankenberger teaches an apparatus for separating a paper web from a cylinder using ultrasonic waves to separate the paper web without contact. See column 4, lines 45-60.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Niemiec to use the ultrasonic separation device of Frankenberger in order to be able to separate the paper web from the cylinder with less potential for damage to the paper web.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of West et al., as applied to claims 1 and 5 above, and further in view of U.S. Patent No. 5,913,471 to Makosch et al.

Niemiec and West et al. teach all that is claimed, as in the above rejection of claims 1 and 5, except that the second pull roll is configured or coated in an ink-repellent manner, at least in some sections.

Makosch et al. teaches a separating roll, 3a, 4a, for a printing press that is configured or coated in an ink-repellent manner. See column 3, lines 25-27.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Niemiec to use the ink repellent separating roll, as taught by Makosch et al., in order to prevent an ink layer from building up.

Claims 7, 10-13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of West et al. and U.S. Patent No. 4,508,033 to Fischer.

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With respect to claims 7, 10-13, and 23 Niemiec teaches a web-fed rotary printing press, in the form of a web-fed rotary offset press, comprising: at least one press cylinder, 16, in the form of a driven, rotating element, for printing a paper web, 14, conveyed at a controllable first tensile stress; a dryer, 18, disposed downstream of said press cylinder, said dryer guiding the paper web along a path; and a first pull roll, 20, which is a driven, rotating cooling roll, disposed downstream of said dryer for conveying the paper web along the path under a second tensile stress.

Niemiec does not teach an apparatus downstream of the press cylinder and upstream of the dryer for separating the paper web from said press cylinder during a normal printing operation, or a second pull roll, in the form of a driven, rotating element, disposed downstream of said press cylinder and upstream of said dryer for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll.

Fischer teaches a printing press having a pull roll, 14, 15, which is a driven, rotating element, disposed downstream of a press cylinder, 5, and upstream of a dryer, 8, for controllably setting a tensile stress on the web between the press cylinder and the pull roll.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the pull roll of Fischer with the printing machine of Niemiec in order to more smoothly transition the web from the printing press cylinders into the dryer.

West et al. teaches an apparatus, 160, 161, disposed downstream of a press cylinder, 30, for separating a web from the press cylinder. See column 10, lines 3-16.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Niemiec to have a separating apparatus, as taught by West et al. in order to improve the transition of the web from the last press cylinder into the dryer and minimize potential damage to the web.

Claims 8 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of West et al. and Fischer as applied to claims 7, 10-13 and 23 above, and further in view of Justus et al.

With respect to claims 8 and 24-25, Niemiec, Fischer and West et al. teach all that is claimed, as in the above rejection of claims 7, 10-13 and 23, except for a controller, coupled to said at least one press cylinder, to said second apparatus and to said second pull roll, said controller setting said first, second and third tensile stresses such that said second tensile stress is 10% or less than said first or third tensile stress.

Justus et al. teaches an apparatus for driving a pull roll for a paper web at a rotational speed being reduced as compared to an upstream rotational speed in order to set the tensile stress to a value suitable for conveying the paper web after separation from the press cylinder, thereby providing a tensile stress considerably lower than that in a printing path upstream. See column 2, line 65 – column 3, line 4.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use a control device, such as that taught by Justus et al. with the press cylinder and pull rolls of Niemiec and Fischer in order to enhance the tendency of the edge roll to eliminate flutter.



Although Niemiec and Justus et al. do not explicitly teach controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of Fischer and West et al., as applied to claims 7, 10-13 and 23 above, and further in view of U.S. Patent No. 5,913,471 to Makosch et al.

Niemiec, Fischer and West et al. teach all that is claimed, as in the above rejection of claims 7, 10-13 and 23, except that the second pull roll is configured or coated in an ink-repellent manner, at least in some sections.

Makosch et al. teaches a separating roll, 3a, 4a, for a printing press that is configured or coated in an ink-repellent manner. See column 3, lines 25-27.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Niemiec to use the ink repellent separating roll, as taught by Makosch et al., in order to prevent an ink layer from building up.

Claims 14-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of West et al. and Justus et al.

With respect to claims 14-15 Niemiec teaches a method for treating a printed material web in a printing material web in a web-fed rotary printing press which further comprises: feeding a paper web to a press cylinder under a first controllable tensile stress, printing on the paper web using the press cylinder, and conveying the paper web along a drying path under a second controllable tensile stress of the paper web.

Niemiec does not teach that the second controllable tensile stress of the paper web is controllably set to be equal to or less than 10% of the first controllable tensile stress, or separating the paper web from the press cylinder during a normal printing operation, the separating of each paper web from the press cylinder being decoupled from the conveying of the paper web along the path, wherein the second controllable tensile stress is set to a value suitable for conveying the paper web after separation from the press cylinder.

West et al. teaches a method of using an apparatus, 160, 161, disposed downstream of a press cylinder, 30, for separating a web from the press cylinder decoupled from the conveying of the paper web along the path. See column 10, lines 3-16.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of Niemiec to include a separating step, as taught by West et al. in order to improve the transition of the web from the last press cylinder into the dryer and minimize potential damage to the web.

Justus et al. teaches driving a pull roll for a paper web at a rotational speed being reduced as compared to a rotational speed of a press cylinder in order to set the tensile

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stress to a value suitable for conveying the paper web after separation from the press cylinder, thereby providing a tensile stress considerably lower than that in a printing path upstream of said at least one press cylinder. See column 2, line 65 – column 3, line 4.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use a control device, such as that taught by Justus et al. with the press cylinder and pull rolls of Niemiec and Fischer in order to enhance the tendency of the edge roll to eliminate flutter.

Although Niemiec and Justus et al. do not explicitly teach controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.

With respect to claims 16-18 and 22, Niemiec does not teach that the drying path is composed of path parts which follow one another and are oppositely curved, is substantially meander-like, or is substantially sinusoidal.

Justus et al. teaches a drying path composed of path parts which follow one another and are oppositely curved, is substantially meander-like, or is substantially sinusoidal. See Figure 1.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the drying path of Justus et al. with the dryer of Niemiec in order to reduce flutter and improve drying efficiency.

With respect to claim 20, although Niemiec does not explicitly teach controlling the second tensile stress such that the drying path has a radii of curvature following one another of in each case less than 200 mm, these values would appear to be specific to a given application and could be readily determined by routine experimentation.

With respect to claim 21, Niemiec teaches the use of a dryer, 8, through which a temperature of the paper web along the drying path would increase.

### ***Response to Arguments***

Applicant's arguments filed, April 21, 2009 have been fully considered but they are not persuasive.

In response to applicant's argument that Justus is cited as disclosing the pull roll element of claim 1, this is not entirely accurate. Neimiec is cited as disclosing the pull roll element which applies tensile stress to the system. Justus is merely relied upon for the teaching of an apparatus which controls a downstream tensile stress to a lower level than that of an upstream tensile stress. Therefore, because one having ordinary skill in the art would recognize the advantages of this control scheme and of applying them to other structures, such as that of Niemiec modified by West et al., the exact structure of the rollers of Justus is not relied upon in the rejection.

In response to applicant's arguments that the combined references do not teach a controller setting said first and second tensile stresses, the control of the rotational speed of the press cylinder is an inherent part of the printing system. Justus et al. clearly discusses setting a downstream roll to rotate at a speed slower than that of the

press cylinder, implying that both speeds are controlled in that system. Although Justus et al. does not disclose that the second tensile stress is 10% or lower than the upstream tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571)272-2159. The examiner can normally be reached on M-F 10:00-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jec

/Jill E. Culler/  
Primary Examiner, Art Unit 2854